

OPERABLE UNIT 10-04 PROPOSED PLAN
PUBLIC MEETING

FEBRUARY 12, 2002
IDAHO FALLS, IDAHO

ORIGINAL

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IDAHO FALLS, THURSDAY, FEBRUARY 7, 2001

MR. SIMPSON: I think that we're ready to get started. Welcome, my name is Erik Simpson. I'm INEEL community relations plan coordinator. I will be the facilitator for tonight's meeting.

Tonight we're here to solicit public input on a proposed cleanup plan that deals with four facets. One would be the remediation of unexploded ordnance, bullet fragments, TNT- and RDX-contaminated soil, and also to discuss the results of the INEEL-wide Ecological Risk Assessment. And the Environmental Restoration Program designations for this project is Operable Unit 10-04.

The last time that we held public cleanup meetings on a proposed plan such as this one was in December of 2000 when the U.S. Environmental Protection Agency, U.S. Department of Energy, and the Idaho Department of Environmental Quality were soliciting public input on a proposed plan that dealt with groundwater remediation at the Test Area North. The action signed a Record of Decision for that project in the fall of last year.

At this time, I would like to go over the

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1 agenda. I don't know if many folks grabbed one as
2 they were coming in. There are some on the back
3 table and also at the sign-up table. First, we will
4 hear a presentation, then we will have a
5 question-and-answer session. Really, what we have
6 done in the past -- and I think is has worked fairly
7 well -- we tried to keep this fairly informal, so
8 if you have questions during the presentation,
9 feel free to raise your hand and stop the
10 presenter and ask your question and then following
11 the presentation, we will have another
12 question-and-answer session.

13 Then, we will have a short break if we run
14 a little long. And we'll have a formal public
15 comment period or a formal comment session. We have
16 a court reporter here tonight who is recording all
17 portions of this meeting. You can also submit any
18 comments that you may have in writing. And there is
19 a comment form on the back of the proposed cleanup
20 plan. I've got copies of that also at the back
21 table. You can make oral comments here tonight or
22 you can submit comments electronically via the
23 Internet, via the Worldwide Web.

24 I should also mention, on the back of this
25 agenda there is a brief survey. Please let us know

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1 your impressions of this meeting. We use the input
2 that we get from these public meetings to shape
3 future meetings. So, if something worked
4 particularly well or if didn't work particularly
5 well, we want to know about it. And you can submit
6 those at the back table at the end of the evening.

7 Also, we have several documents at the back
8 table. We've got the Remedial Investigation
9 Feasibility Study, which is a huge document on this
10 project. We've also got past facility Records of
11 Decision. We have a Federal Facility and Consent
12 Order. We have fact sheets, basically, literature
13 for all reasons.

14 At this time, I would like to introduce the
15 presenters tonight. Glenn Nelson, with the
16 Department of Energy, will discuss the project
17 background and the overview. Rick Poeton of the
18 U.S. Environmental Protection Agency, Region 10 in
19 Seattle, will explain the risk-assessment process.
20 And Gerry Winter is with the state of Idaho,
21 Department of Environmental Quality, and he will
22 discuss the remedial alternatives and summary.

23 With that, I will turn this lapel mike over
24 to Glenn.

25 MR. NELSON: First Of all, it's great to

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1 see you folks. We had a public meeting in Boise
2 last week. I had no idea how many people would show
3 up. In final analysis, we could probably have held
4 it in a phone booth. So, it's good to see more than
5 a handful of folks to show up.

6 It's also interesting or good, or maybe
7 that is the same word, to see some of you back for a
8 second vaccination on this same topic because this
9 is the fourth meeting similar to this that we've
10 had. So, some of you have come back and that, at
11 least, proves that listening to this briefing isn't
12 generally lethal.

13 About ten years ago, the Department of
14 Energy, the Navy, the Environmental Protection,
15 Agency, and the state of Idaho signed this document
16 called the Federal Facility Agreement and Consent
17 Order. This particular document acknowledges that
18 some remedial activities, environmental cleanup
19 activities need to take place at the INEEL. And it
20 divides those areas of activity into ten groups,
21 which are called Waste Area Groups.

22 Eight of the Waste Area Groups were
23 facilities that were operating at that time. WAG 10
24 is concerned with all of the INEEL that is not
25 encompassed by any of the nine smaller Waste Area

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1 Group. Waste Area Group 10 has two parts. The
2 first part that we are talking about tonight is
3 called Operable Unit 10-04, and it deals with
4 contaminants on the surface. About a year, year and
5 a half from now we will be at the same point as we
6 are tonight with 10-04, only we will be talking
7 about the second part of WAG 10, which will be
8 Operable Unit 10-08, which will be concerning
9 groundwater that underlies the INEEL.

10 One other thing, this document sets forth
11 milestones, sets forth a list of documents that have
12 to be provided and approved by the parties, to the
13 signing parties to this document. It contains rules
14 for how we fuss with each other and how we do it
15 politely most of the time and things like that. So,
16 it's kind of a working agreement between the EPA,
17 the state of Idaho, and the Department of Energy.

18 In the CERCLA process right now -- well, if
19 you haven't noticed it, on the table back here, are
20 two fairly thick documents, Volume 1, Volume 2
21 called a Remedial Investigation and Feasibility
22 Study. I don't know how many pages are involved,
23 but I will guess about 1,000 to 1,500 pages.

24 This document called a Proposed Plan is a
25 38-page summary of what we think are the most

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1 important parts of the much larger document back
2 there, which is quite a reading chore.

3 We are offering -- this document was mailed
4 out to everybody that was on the official mailing
5 list. If you haven't received a copy yet, you are
6 certainly welcome to take a copy this evening. We
7 solicit your comments, your input on this document,
8 and on the direction that we are currently heading.

9 So, where we are tonight is seeking your
10 input. Now, there is a review period on this.
11 Normally, it's 30 calendar days, but the Citizens'
12 Advisory Board requested a 30-day extension to that
13 30-day period and that was granted. So, the end of
14 the review period on this particular document is
15 March 29th. So, we ask that any comments that you
16 have be postmarked by that date or whatever -- I
17 don't know how we enforce that rule, but that is the
18 end of the official public-review period.

19 Next slide, please. I failed to mention
20 that the FFA/CO almost acted like a marriage
21 certificate in that it condoned a prearranged
22 marriage between Waste Area Group 6 and Waste Area
23 Group 10. So, almost from the outset, almost all of
24 the last ten years WAG 6 and WAG 10 have been
25 together in all the documentation that has been

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1 prepared. WAG 6 contained in it two reactor
2 facilities, one known as BORAX and one as EBR-1 that
3 both were inactive at the time the FFA/CO was
4 signed. So, they were merged with WAG 10 since
5 WAG 10 is the last WAG and picks up all the loose
6 ends that might be left by other WAGs that preceded
7 it.

8 One thing that is added or contained in
9 Operable Unit 10-04 is a complete analysis of risks
10 to ecological receptors across the INEEL for the
11 entire site.

12 Next slide, please. All told, 50 sites
13 were identified during the RI/FS process. In other
14 words, as a result of the two large documents that
15 are back there. Nine were identified as needing
16 remediation because of the risks that they posed.
17 The three basic groups -- I will use this visual aid
18 that I brought with me. The three basic groups of
19 risks are unexploded ordnance, things that should
20 have gone bang in the night but did not,
21 components -- maybe I should choose three different
22 fingers. Components that are normally found in
23 things that are supposed to explode like TNT or RDX
24 but for some reason they did not detonate, then the
25 third major category is lead.

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1 About 15 years ago, the INEEL had, in
2 essence, its own army with about 500 or 600 members
3 that were prepared to repel all kinds of terrorist
4 attacks and folks had to train very vigorously to be
5 a member of that team. Maybe people would shoot
6 70-, 80,000, 90,000 per year. So, as a consequence,
7 in the area where they trained, there are somewhere
8 between 60 and 70 tons of lead from the many
9 hundreds of thousands of rounds that they fired.

10 The RI/FS was finalized based on input
11 from the state of Idaho, the EPA, and the
12 Shoshone-Bannock Tribes. The input from the tribes
13 was cheerfully accepted and is fully incorporated as
14 Appendix A in the Remedial Investigation and
15 Feasibility Study.

16 Next slide, please. The reason we have all
17 of these artillery shells and other unexploded items
18 is that during World War II, and then to a lesser
19 degree during the Vietnam War, large portions of the
20 INEEL were used for calibrating recently relined
21 artillery barrels that would eventually be put back
22 into service on Naval ships. All kinds of rounds
23 were fired. Some were supposed to make little
24 bangs. Some were supposed to release die markers.
25 Some were supposed to explode with the full force of

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1 ammunition. Some rounds behaved properly and some
2 did not.

3 Next slide, please. This is an aerial
4 photo of the BORAX reactor area. BORAX I would --
5 regrettably is not in this photo, but is a few
6 hundred yards off to the left of this particular
7 area.

8 The BORAX-I area has been capped. That
9 will be mentioned on our forthcoming slide. Capped
10 means the layers of soil and gravel and clay. And,
11 then, finally, extremely large boulders have been
12 placed over the area to prevent or retard any
13 intrusion by rainwater or little animals that live
14 in the ground and like to dig holes and things like
15 that.

16 Next slide, please. This is a portion of a
17 bomb or an artillery shell partially embedded in the
18 soil, bottom end broken off, explosive
19 constituents -- what should have been explosive
20 constituents having been spread out and producing
21 this dark staining of the ground nearby.

22 Next slide. These are closer photos of
23 explosive compounds, either TNT or RDX, which was --
24 at least used to be a primary military explosive. I
25 think it has been replaced with a later one called

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1 HMX, which we do not have. This is a genuine depth
2 charge that is out of its depth, but these are in
3 as-found condition at the INEEL.

4 Next slide, please. These are the three
5 components, as I have been told of a anti-tank mine.
6 These are pressure plates. This little device is
7 defused, and this is the mine. A knowledgeable
8 member of our audience in Boise told me that this
9 particular device was designed to detonate with
10 28 pounds of energy placed on it.

11 Next slide, please. These are not practice
12 areas for alien crop circles. These are, in fact,
13 an area at the site known as the mass-detonation
14 area. For reasons unknown to me, but I'm sure they
15 made lots of sense at the time when Naval personnel
16 were not shooting things out of big gun barrels,
17 they would occasionally go out into large flat areas
18 and create buildings to be demolished or just, in
19 general, experiment with explosive affects. So,
20 these craters are a result of their experimentation
21 that was done.

22 Next slide. There have been a few ordnance
23 cleanup efforts as part of WAG-10 that have taken
24 place over the last few years. The sites that were
25 judged to be a more immediate threat than the sites

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1 that still remain to be cleaned up. These are
2 either bombs or projectiles that were collected and
3 this is a piece of angle containing explosive
4 compound and when that is detonated, when the
5 explosive compound is detonated, hopefully, any of
6 these that are still live rounds will detonate
7 sympathetically, or if they are not live rounds,
8 they will get sliced in half. We will at least know
9 that those threats have been neutralized. So, this
10 is a photograph taken during one of the cleanup
11 efforts a few years ago.

12 Next slide, please. This is the gun range,
13 genuine invitation paper terrorists were stapled to
14 these wooded posts, then 500 or 600 members, not all
15 at once, of course, our little army at the site
16 would shoot at the terrorists. This house was used
17 for clearing exercises. And all together in this
18 area there are close to 70 tons of lead in little
19 115- or 230-grain increments. So, that is a lot of
20 bullets.

21 Next slide, please. Okay. I mentioned
22 already that a cap had been put on the BORAX-I
23 reactor. The BORAX-I reactor, the top of that
24 reactor, was only a bit above grade level. I can't
25 tell you exactly how high. It had a couple earth

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1 and berms up around it. But from the photographs,
2 it didn't look like it was any greater than 10 feet
3 above grade level.

4 These two statements mean almost the same
5 thing. And, really, the essence is that areas of
6 the site that pose the highest risks have already
7 been cleaned up. Small areas compared to what is
8 left because we still have a considerable number of
9 acres, a couple hundred thousand acres, anyway, that
10 need to be cleaned up, but the density of items
11 varies greatly. By that, I mean just because you
12 find an item here that needs to be picked up that
13 doesn't mean that you will find another one two feet
14 away. It might be some distance.

15 Okay. That concludes my portion of this
16 presentation. I would like to recognize or
17 reintroduce Mr. Rick Poeton from EPA and let him
18 talk about risks and risk assessment.

19 MR. POETON: Thank you, Glenn.

20 Glenn described just in that last slide
21 some of the removal actions that were taken for some
22 of the unexploded ordnance at the site. The logic
23 there is that if you got an obvious risk, don't
24 spend a lot of time thinking about it, go ahead and
25 clean it up. That was the purpose of actions. What

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1 I'm going to be describing is the risk-assessment
2 process, when the conclusions are less obvious, and
3 there are potential contaminants in the environment,
4 but some thought and consideration has to be given
5 to what the appropriate cleanup levels might be and
6 what the necessary actions are and what sites of
7 those should be addressed.

8 The risk-assessment process that we used at
9 Operable Unit 10-04 is the same that is used in
10 Superfund, generally, and at the rest of the INEEL.
11 It can be complex, but, in essence, it's sort of
12 common sense. You want to identify the contaminants
13 in the environment. What are we worried about?
14 What contaminants are present? How toxic or
15 carcinogenic might they be? You want to identify
16 the pathways for exposure. A contaminant in the
17 environment isn't in and of itself an issue, but if
18 someone is exposed to it or if some part of the
19 ecosystem is exposed in that risk, that pathway
20 needs to be addressed. And correspondingly, the
21 receptors need to be looked at in terms of
22 identifying human and ecological -- that is to say,
23 plant and animal receptors that could be exposed.

24 Lastly, some quantitative or
25 semiquantitative characterization of the risk.

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1 How big a risk is there and how does it stack up
 2 against the criteria that are generally used for
 3 making decisions on these bases?
 4 Looking at the human-health scenarios and
 5 recognizing here that we also did look at ecological
 6 risk, but for the most part looking at human health.
 7 The assessment addressed two primary risk scenarios.
 8 Those being an occupational scenario. There are
 9 workers currently at the site and also a residential
 10 scenario. For the occupational scenario, we looked
 11 at current workers as well as workers 100 years in
 12 the future. And 100 years being the period during
 13 which it's assumed that some sort of federal control
 14 will remain over the site.

15 For residential exposures, we looked at a
 16 resident 100 years in the future after control of
 17 the site has passed to private hands. And that
 18 scenario characterizes our residential use.

19 For the occupational scenario, just to give
 20 an idea of the kind of detail that was involved in
 21 this evaluation, we specified exposure for a worker
 22 of eight hours a day, 250 days a year for a working
 23 lifetime of 25 years. This was done for both
 24 current workers and a worker 100 years in the
 25 future. Primary pathways of concern, as you might

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1 imagine for a worker with the types of contaminants
 2 that we are talking about are ingestion of soil and
 3 absorption of contaminants through the skin or
 4 dermal absorption.

5 The other scenario for the residential use
 6 in 100 years was focused on what we generally
 7 describe as a rural residential scenario. That is
 8 someone living on the site, if can you picture
 9 someone farming the area. Deriving most of their
 10 livelihood and subsistence from the immediate site so
 11 they are exposed to the full range in their
 12 lifestyle of exposures to the contaminants,
 13 including through food and water, as well as direct
 14 exposure through exposure to soil and inhalation.

15 The human-health evaluation looks at both
 16 carcinogenic risks and noncarcinogenic toxic risks.
 17 The criteria that are typically used for cancer
 18 risks under Superfund programs are cancer risks in
 19 the 1 in 10,000 to 1 in 1 million excess lifetime
 20 cancer incidents.

21 Those are pretty small risks. Recognize
 22 that that is the range at which we conclude that no
 23 additional action is needed on this site, and,
 24 basically, any potential use for the site would be
 25 okay, including children playing in sandboxes and

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1 those kinds of things. For noncarcinogenic effects,
 2 we look at something called a hazard index, which
 3 relates the exposure to the evaluated individual to
 4 a level that we believe below which there would be
 5 no hazardous concerns. Above that level, there may
 6 or may not be, but below a hazard index of 1, it's
 7 unlikely to experience health effects.

8 So, what do we find when we looked at our
 9 big site, which takes up most of INEEL? As Glenn
 10 said, we started out looking at 50 potential release
 11 sites, and we identified nine as having concerns
 12 based on the criteria that were on the previous
 13 slide. Five of these sites fall into the category
 14 of TNT, RDX contamination sites. These are sites
 15 where the soil is contaminated with the residues
 16 from use of explosive materials.

17 Three of the sites are very large ordnance
 18 sites where ordnance was used for one purpose or
 19 another, two large bombing areas, and a down-range
 20 firing fan where the guns were proof tested for the
 21 Naval ordnance.

22 And the third site is the excursion
 23 training force gun range with several tons of lead
 24 in a fairly small area.

25 This figure shows the five sites for the

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1 TNT, RDX residual-contamination areas. They are the
 2 field station, the land-mine fuse area. The fire
 3 station, which is identified as such because of its
 4 proximity to the fire station. An area called NOAA
 5 after National Oceanographic and Atmospheric
 6 Administration and NODA, the Naval Ordnance Disposal
 7 Area. These are relatively small sites in all the
 8 vicinity of the Test Reactor Area and INETC.

9 The contaminants of concern for the
 10 sites that we identified include TNT, RDX, 1, 3
 11 dinitrobenzene and ordnance and lead. These are the
 12 primary contaminants at the five TNT, RDX residual
 13 soil contamination sites.

14 Unexploded ordnance identified as UXO,
 15 commonly, and lead. Looking at the human health
 16 risk results for, again, in this case just for the
 17 TNT, RDX sites and for a limiting case, which for
 18 these is the future residential scenarios. You can
 19 see that the cancer risks for all but one fall above
 20 a risk of 1 in 10,000. So, we would consider these
 21 to be areas of concern where these risks should be
 22 addressed.

23 For the toxic evaluation related to the
 24 hazard index for the same sites, all of them fall
 25 above the hazard index of one below which we believe

1 there would be no potential for risk. So, in one
2 way or another, all five of these sites -- and,
3 again, this is a future residential scenario, pose
4 or give cause for concern.

5 For the other sites, the gun range has so
6 much lead in it that it is just obviously an area
7 that needs to be addressed from that standpoint.
8 The ordnance areas are unique in my experience of
9 risk assessment at this site. They don't fall into
10 the typical cancer-risk assessment paradigm that we
11 use. But, clearly, they represent a risk. It's a
12 very understandable risk of the contact with
13 ordnance that can lead to death or dismemberment.
14 And both of these are areas that need to be
15 addressed for those purposes.

16 This is also the site-wide ecological risk
17 Waste Area Group. This is our opportunity to look
18 at ecological risk assessment in the great bulk of
19 the site outside the individual fenced areas that
20 characterize most of the WAGs.

21 Ecological risk assessment is a little
22 different than human-health risk assessment, but
23 some of the logic is the same. You need to look at
24 pathways. You need to look at receptors. And you
25 need to pay attention to how the contaminants expose

1 your receptors.

2 The ecological risk estimates were
3 performed for six basic groups of creatures on the
4 site mammals, birds, insects, plants, reptiles, and
5 amphibians. The Hazard Quotient, which is the
6 decision tool for this purpose is something similar
7 to the hazard index that is used for human-health
8 risk assessment. But the important difference being
9 here that ecological risk assessment, we are looking
10 at impacts on populations. Where in human-health
11 risk assessment, we are concerned with effects on
12 specific individual receptors.

13 Looking at the results of the ecological
14 risk, we see many of the same sites that occurred in
15 our human-health risk assessment popping up. These
16 six sites represent potential risks to ecological
17 populations. These same six sites also are at issue
18 for our human-health evaluation.

19 The remaining three sites, the ordnance
20 sites, and from an ecological-risk standpoint, we
21 don't believe that these sites pose an ecological
22 risk. They may pose a risk to individual members of
23 a population at the site, but we don't believe that
24 there is a basis for concluding that there is a
25 population risk that we are at risk of losing a

1 population to unexploded ordnance at the site.

2 Next up is Gerry Winter, who will talk
3 about some of the alternatives for addressing these
4 results.

5 MR. WINTER: Thank you, Rick.

6 Ecological risk assessment is one of the
7 major aspects of Operable Unit 10-04. The process
8 that was followed is shown on this schematic, which
9 is also shown more graphically on this poster. It
10 looked at the individual WAGs, the ecological risk
11 assessments that were done at the individual WAGs.
12 Summaries were made of those assessments. Then,
13 there was additional work done at the INEEL-wide
14 effort. Then, the last phase will be a monitoring
15 plan, which will be developed this summer.

16 Remedial-action objectives drive what we
17 will be doing. What you need to retain from this
18 slide, really, are three basic things. We need to
19 try to reduce the risk to humans from exposure to
20 TNT, RDX, lead, and unexploded ordnance, and
21 ecological receptors to contaminated soil.

22 We have to use these evaluation criteria.
23 The threshold criteria have to be met. And the
24 following slide will show the qualitative assessment
25 for the balancing criteria. What is important at

1 this point are the modifying criteria, particularly
2 community input. And that's why we're doing these
3 public hearings. We want your input as to what is
4 being shown as preferred alternatives.

5 The TNT, RDX contaminated areas can be
6 dealt with in several methods. You will see on all
7 of these alternatives for these different types of
8 contamination a No Action alternative. Assessment
9 of No Action alternative is required for comparison.
10 The preferred alternative is 3A where the

11 contaminated soil would be removed, treated, and
12 then on-site disposal would occur. And
13 institutional controls would be maintained. You
14 will see institutional controls appear quite
15 redundantly on these slides a lot is that because of
16 uncertainty with ordnance detection and cleanup.

17 Alternative 3B is removal, treatment and
18 off site disposal and institutional controls.
19 Alternative 4A is removal of incineration, off-site
20 disposal, again, institutional controls. And the
21 last alternative, 4B, is removal, composting the
22 soil, and returning that soil to the excavated area
23 and institutional controls.

24 AUDIENCE MEMBER: I think the proposed plan
25 said you were looking at the CFA landfill. I wonder

Page 25

1 if you would talk a little bit why the CFA instead
2 of the ICDF, which is the landfill designed for
3 CERCLA, contaminated soil.

4 MR. POETON: Part of that is because I
5 think they are still trying to develop the
6 waste-acceptance criteria at ICDF. If I remember
7 correctly, in the RI/FS ICDF is mentioned, as is
8 CFA. Is that correct, Chris?

9 AUDIENCE MEMBER: So, that decision hadn't
10 been made where on-site disposal would take place?

11 MR. POETON: Correct. At these
12 contaminated-soil sites conducted is a survey,
13 removed the chunks of fragments of TNT and RDX,
14 detonate those fragments, then the waste would be
15 disposed on site, then areas that were excavated, I
16 believe, the criteria is in excess of what will be
17 backfilled and revegetated, and institutional
18 controls.

19 The ordnance areas, a little briefer, we
20 don't have as many alternatives. Again, the
21 No Action alternative; the Limited Action and
22 Institutional Controls is basically what goes on out
23 there now. If there is an action plan where there
24 would be excavation, for instance, there would be a
25 survey, and if ordnance were found it would be

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1 cleaned up.

2 The preferred alternative is 3, which is
3 detection, removal, and institutional control.

4 The preferred alternative is key to really
5 evaluating our methodologies for trying to detect
6 ordnance. We would pick an appropriate
7 site-specific technology, survey to try to define
8 the extent and boundaries of this firing fan and the
9 bombing ranges. There is actually two bombing
10 ranges on the INEEL. We would log the locations of
11 what are probable ordnance detections, confirm, and
12 clear as appropriate. Again, if there are
13 excavations, those will be back filled and
14 revegetated. Again, institutional controls are
15 still needed.

16 The gun range is a little easier to
17 comprehend. As Glenn described, there were many
18 rounds of small arms ammunition fired in berms. We
19 have three alternatives that we are considering.
20 Again, No Action, the preferred alternative is 3A
21 where the contaminated soils would be removed,
22 treated, and disposed. Alternative 3B would be
23 remove and treat and return it to the excavated
24 areas.

25 Preferred alternatives involve evaluating

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1 berms, mechanically screening the soil from bullets
2 in casings, which would be sent off site for
3 recycling. We would sample the soils, and those
4 soils that are below the remediation goals would be
5 sent back to the site. Those that are above the
6 goals would be sent on site pending receipt of input
7 from the public, and then contour and revegetate.

8 At this point in the schedule, we are
9 approximately here. We're waiting for public input
10 so that the ROD can be drafted. The April 1 date is
11 going to be affected by the request for extension
12 for public comment on this proposed plan. The scope
13 of work is not due until September. The draft work
14 plan, a year from now. And remedial action would
15 begin October 2003.

16 The ecological-risk assessment was the
17 final step in the eco-assessment of the INEEL. It
18 included, as I mentioned, looking at the individual
19 WAGs, looking at ecologically sensitive areas,
20 sampling of mice and plants, insects, surveys, study
21 long-term vegetation changes.

22 Habitat, presence of species that are
23 threatened and endangered, sensitive species, et
24 cetera. Radiological data that has been collected.
25 And what is important to note is the percentage of

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1 the INEEL that is affected by the WAG facilities and
2 the TNT, RDX contaminated areas. It's a small
3 percentage of the total INEEL, which is 890 square
4 miles.

5 As I mentioned at the start, because there
6 were uncertainties and some pretty hefty assumptions
7 made in ecological assessment, risk assessment,
8 we're going to do ecological monitoring. This
9 monitoring will be conducted under a long-term
10 stewardship program. And a monitoring plan will be
11 developed this summer.

12 In summary, 50 sites were identified. Nine
13 of them pose unacceptable risk to humans or
14 ecoreceptors. The ERA results indicate minimal risk
15 to the ecological populations and the combined costs
16 for the preferred alternatives is 24 million.

17 Are there any questions?

18 AUDIENCE MEMBER: Could you go back to the
19 flowchart that you put up as the very first slide?

20 MR. POETON: Okay.

21 AUDIENCE MEMBER: I'm interested in the
22 very bottom of the flowchart while we are looking
23 for the slide. Could be describe for me what a
24 remedial risk assessment is?

25 MR. POETON: We have two risk-assessment

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1 people here from DOE. I prefer that they tackle
2 that. I'm a hydrogeologist.
3 STAFF MEMBER: I think there is some
4 evaluation in performing an ecological cleanup.
5 There would be an evaluation of the remedial action
6 as well as posing possible risk to destroying
7 habitat.

8 AUDIENCE MEMBER: So, I'm a little
9 concerned. I just want to make sure I understand
10 the bottom. I don't see a loop out that says, "Do
11 remediation." I see "Are baseline risks
12 significant? Yes, do a risk assessment." Go to
13 monitoring then loop around. I don't see where
14 remediation is a step that you take.

15 Robin, do you see what I'm talking about?
16 I don't know if a remedial risk assessment means do
17 remediation and then another risk assessment or do a
18 risk assessment prior to doing remediation.

19 STAFF MEMBER: Yes, if you went through and
20 found that you had baseline ecological risks you
21 would then go and do a remedial risk assessment to
22 determine whether you needed to do remedial actions.

23 AUDIENCE MEMBER: So, I assume there is
24 actually a line out that goes to remediation.

25 MR. NELSON: There should be; however, we

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1 didn't go into that box.

2 AUDIENCE MEMBER: So, if I can assume along
3 the same lines, then, are there risk assessments
4 both for the environment and for people for each of
5 the alternatives that are proposed?

6 MR. POETON: For each of the contaminated
7 site.

8 AUDIENCE MEMBER: No, for each of the
9 proposed alternatives.

10 STAFF MEMBER: There is an evaluation of
11 our impacts when we do a remediation action to the
12 environment underneath. However, this is sort of a
13 separate issue for the site-wide ecological risk
14 assessment.

15 MR. POETON: Did that get your question?

16 AUDIENCE MEMBER: It did.

17 MR. POETON: Any other questions?

18 AUDIENCE MEMBER: Since there is no risk
19 for UXO, human health risk, how do you come up with
20 an RAO? What will be the measurement of success for
21 cleaning up UXO? Is as appropriate the best that we
22 can do now?

23 MR. POETON: Well, I think there is a very
24 real health risk for UXO, there just isn't any
25 carcinogenic health risk. The prospective that we

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1 took on this was that some kind of institutional
2 controls would be necessary to restrict access or
3 just maintain control over an area to prevent
4 contact with UXO people that would result in harm to
5 them from explosions. The level of that
6 institutional control can vary depending on the
7 exact nature of the site.

8 We also feel that, as with our removal
9 actions, when we know there is UXO out there, and
10 some of it surfaces from year to year as a result of
11 frost heaves, that the right thing to do is to clean
12 it up when you find it. So, there is really --
13 there are two pieces to the logic there. One is to
14 survey it and identify it and remove it when you
15 find it and the other is to maintain controls over
16 it because you know in all probability you don't
17 have it all.

18 AUDIENCE MEMBER: So, when you do the
19 investigation part or however you're going to detect
20 the UXO as part of the cleanup of UXO, what will be
21 the remedial-action objective? What is the
22 measurement of success? A 100 percent cleanup of
23 what you found?

24 MR. POETON: The remedial-action objective
25 would be to prevent explosive injury to people from

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1 contact with ordnance. And the way we would do that
2 is twofold. One, to find as much as we can on a
3 reasonable basis, and the second part is to maintain
4 control over the property as long as we aren't
5 convinced that we have it all. We don't think it's
6 possible to go out and find a 100 percent basis.
7 There are too many examples in the last few years
8 where people have gone back over decades and keep
9 finding UXO in areas. So, it's a risk that demands
10 with current technology constant attention.

11 Any other questions?

12 AUDIENCE MEMBER: I have one more question
13 that probably Robin needs to answer this one too.
14 But the issue of sensitive species on page 10 of the
15 proposed plan it lists threatened endangered
16 species, sensitive species, species of concern,
17 including 11 species of plants, 20 birds, and
18 mammals. But I notice that the site-wide ERA
19 specifically makes an assumption that we will not
20 look at sensitive species.

21 So, I wondered they couldn't quite
22 reconcile those two facts.

23 MS. VAN HORN: Basically, what we did for
24 the site wide is looked at whether there was habitat
25 for sensitive species in some of those areas that

1 were contaminated. And we did more of a habitat
2 analysis: Are there sensitive species in these
3 areas? And there are some, and that is documented
4 in the comprehensive. But to go further than that
5 with no protection based on federally protected
6 to go to the individual level we remained at a
7 population analysis.

8 AUDIENCE MEMBER: Are the threatened
9 endangered species there?

10 MS. VAN HORN: No.

11 MR. POETON: Any other questions?

12 MR. SIMPSON: Since it's fairly early, I
13 vote that we just move to the public-comment session
14 of the meeting, unless there are some objections, if
15 anyone wants to take a break first.

16 This is the portion of the meeting where
17 you make comments to the agencies. And your
18 comments, as I mentioned earlier, will be recorded
19 by our court reporter verbatim. And the agencies
20 will address your comments in the Responsiveness
21 Summary section of the Record of Decision. That
22 Record of Decision is scheduled to be signed
23 sometime this year, this fiscal year.

24 So, with that I would like to -- I will ask
25 that people make comments take the microphone. We

1 want to make sure -- to keep Nancy on our good side.

2 AUDIENCE MEMBER: My name is John
3 Commander. I have been a site employee for pretty
4 close to 40 years. I'm aware that the site has been
5 surveyed for unexploded ordnance on at least four
6 different occasions. And that was during the period
7 from 1993 to 1997. And it appears to me that
8 spending another 16.5 million to find additional UXO
9 doesn't make cost-effective sense. The money would
10 be better spent cleaning up land mines in many
11 countries where death and maiming occur from the
12 land mines on a daily occurrence. We haven't had a
13 death site since the -- there has not been one death
14 from the site from unexploded ordnance since the
15 site was started in 1949.

16 Spending 4.3 billion TNT and RDX
17 remediation is not necessary. Both of these items
18 are biodegradable. Over a period of 100 years there
19 won't be any trace of those materials. Spending
20 3.5 million for salt, lead, and copper removal is
21 not cost effective. Solid lead is not easily
22 assimilated by any receptors.

23 We would be better off to spend that money
24 in the many cities in Idaho that have lead that is
25 ingested and inhaled by the population because it's

1 disposed there as very easily absorbed aerosols from
2 various operations such as smelting and that kind of
3 thing. Let's spend the money where it could be more
4 effectively used rather than where it's not
5 necessary.

6 MR. SIMPSON: Thanks. I forget to mention
7 if you do make comments, please state your name and
8 address.

9 AUDIENCE MEMBER: My name is John
10 Commander. My address is 170 Field Stream Lane,
11 Idaho Falls 83404. I didn't say -- my
12 recommendation would be the No. 1 recommendation,
13 that is do nothing at the present time.

14 MR. SIMPSON: Thank you. Anyone else?
15 Boy, easy crowd.

16 AUDIENCE MEMBER: Maxine Bacons, University
17 of Idaho, 1776 Science Center Drive, Idaho Falls. I
18 have a couple of comments, and most of my concerns
19 came up in the question period. But I guess I share
20 John's concern about the money that it will cost,
21 and especially related to putting material in the
22 CFA landfill.

23 I can't quite bend my mind around why we
24 would spend 44 million to pick up the soil and dump
25 it in an industrial landfill that is not a hazardous

1 waste landfill. It doesn't have leachate
2 collection. It doesn't eco-protection. To me, that
3 doesn't pass the gable test. I don't get it. If
4 we're going to dig it up and if it is hazardous,
5 then put it in the ICDF. If we have to wait until
6 the ICDF is ready, then let's wait until the ICDF is
7 ready. If it's not hazardous, why will we spend
8 \$4 million to clean it up?

9 I'm also concerned -- because the history
10 of environmental regulations is that they get
11 tighter and tighter. We often have to go back and
12 redo things. I am concerned that we might have to
13 go back and dig up the CFA landfill because we
14 dumped stuff in it that we thought was okay today
15 but it might not be okay 10 to 20 years from now.

16 My concern about the flowchart is a more
17 general concern about ecological work, general at
18 the site. I think that it's been given short shrift
19 at the INEEL for many years that the human-health
20 risks have been really focused on and the ecological
21 risks have been sort of pushed aside.

22 I was on the Citizens' Advisory Board for
23 several years. I was vice chair for one year. I
24 was actually on the CAB when we reviewed these
25 proposed plans that said, "We will defer that site

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1 to WAG-10. We will handle that in WAG-10." As I
2 read through this, there are two sites that pose
3 ecological risks that are not due to be touched
4 according to this proposed plan because they don't
5 pose ecological risk. They will be ignored. I look
6 at the flowcharts. I don't see cleanup in there
7 for ecological damage.

8 MR. POETON: Just one more point about
9 that. Human health risk assessments are often
10 criticized, sometimes rightly so, for having
11 human-threat scenarios in the future.
12 Hypothetically, someone is going to live there in
13 100 years.

14 While I have done risk assessment myself,
15 it is hypothetical, but ecological risks are less
16 hypothetical. There are receptors there now and
17 those risks are there today. So, if you want to get
18 away from hypothetical, look at ecological risk. I
19 guess it's not acceptable to me to toss those off
20 and say we will not clean up just because it's
21 ecological. I will also submit comments in writing.

22 MR. SIMPSON: Anyone else? As we mentioned
23 earlier, the comment period on this project has been
24 extended and ends on March 29th.

25 And with that, thank you for your

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1 attendance tonight and good night.
2 (Meeting concluded.)
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1 STATE OF IDAHO)
2) Ss.

2 County of Ada)
3

4 I, NANCY SCHWARTZ, Certified Court Reporter
5 No. 483 and Notary Public in and for the State of
6 Idaho, do hereby certify:

7 That said hearing was taken down by me in
8 shorthand at the time and place therein named and
9 thereafter reduced to computer type, and that the
10 foregoing transcript contains a true and correct
11 record of the said hearing, all done to the best of
12 my skill and ability.

13 I further certify that I have no interest
14 in the event of the action.

15 WITNESS my hand and seal this 25th day
16 of March 2002.

18 _____
19 Nancy Schwartz, Notary
Public in and for the

20 State of Idaho
21

22 My commission expires:
23 March 19, 2007
24
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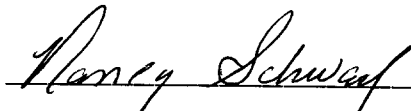
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) Ss.
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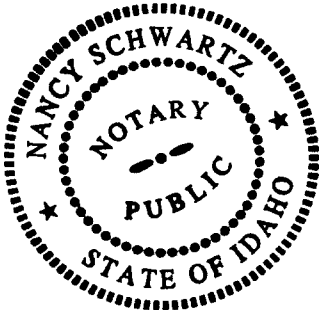
I further certify that I have no interest
in the event of the action.

WITNESS my hand and seal this 25th day
of March 2002.



Nancy Schwartz, Notary
Public in and for the
State of Idaho

My commission expires:
March 19, 2007



February 12, 2002, Idaho Falls, Idaho

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